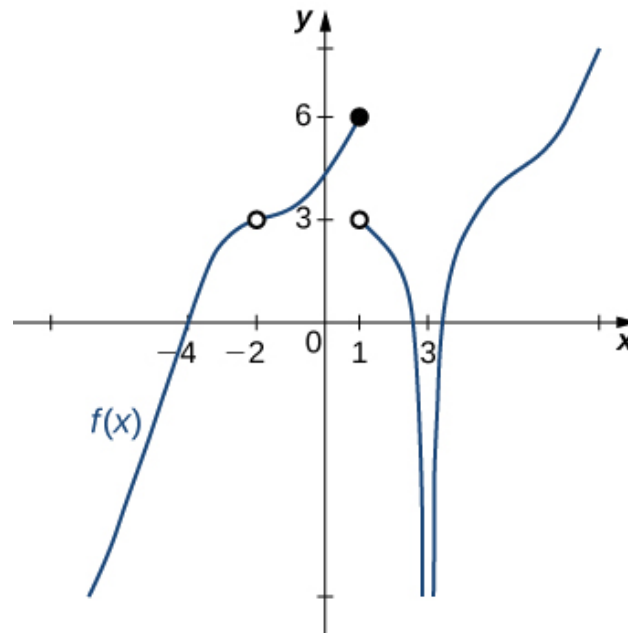


1. For the graph below, find the value(s) a that makes the statement true:
 $\lim_{x \rightarrow a} f(x)$ does not exist.



- A. -2
- B. 1
- C. 3
- D. Multiple a make the statement true.
- E. No a make the statement true.

2. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow 8^+} \frac{-4}{(x+8)^4} + 6$$

- A. ∞
- B. $f(8)$
- C. $-\infty$
- D. The limit does not exist
- E. None of the above

3. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 5} \frac{\sqrt{6x - 14} - 4}{7x - 35}$$

- A. ∞
 - B. 0.350
 - C. 0.018
 - D. 0.125
 - E. None of the above
-

4. Evaluate the limit below, if possible.

$$\lim_{x \rightarrow 6} \frac{\sqrt{6x - 20} - 4}{5x - 30}$$

- A. 0.125
 - B. 0.025
 - C. 0.490
 - D. ∞
 - E. None of the above
-

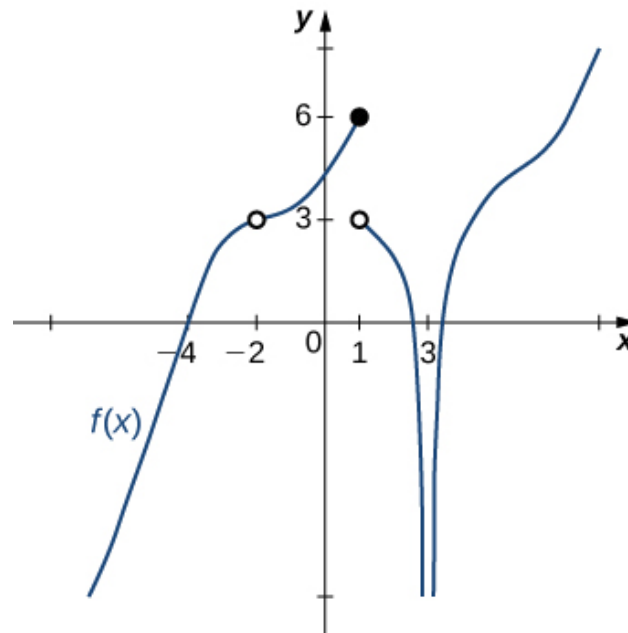
5. Based on the information below, which of the following statements is always true?

$f(x)$ approaches 4.192 as x approaches 1.

- A. $f(1)$ is close to or exactly 4
- B. $f(4)$ is close to or exactly 1
- C. $f(4) = 1$
- D. $f(1) = 4$

E. None of the above are always true.

6. For the graph below, find the value(s) a that makes the statement true:
 $\lim_{x \rightarrow a} f(x)$ does not exist.



- A. 3
- B. 1
- C. -2
- D. Multiple a make the statement true.
- E. No a make the statement true.

7. Evaluate the one-sided limit of the function $f(x)$ below, if possible.

$$\lim_{x \rightarrow -1^+} \frac{6}{(x+1)^4} + 7$$

- A. $f(-1)$
- B. $-\infty$
- C. ∞

- D. The limit does not exist
- E. None of the above

8. Based on the information below, which of the following statements is always true?

As x approaches 0, $f(x)$ approaches 15.316.

- A. $f(x)$ is close to or exactly 0 when x is close to 15.316
- B. $f(x) = 0$ when x is close to 15.316
- C. $f(x)$ is close to or exactly 15.316 when x is close to 0
- D. $f(x) = 15.316$ when x is close to 0
- E. None of the above are always true.

9. To estimate the one-sided limit of the function below as x approaches 5 from the right, which of the following sets of numbers should you use?

$$\frac{\frac{5}{x} - 1}{x - 5}$$

- A. {4.9000, 4.9900, 4.9990, 4.9999}
- B. {5.0000, 5.1000, 5.0100, 5.0010}
- C. {5.0000, 4.9000, 4.9900, 4.9990}
- D. {4.9000, 4.9900, 5.0100, 5.1000}
- E. {5.1000, 5.0100, 5.0010, 5.0001}

10. To estimate the one-sided limit of the function below as x approaches 6 from the left, which of the following sets of numbers should you use?

$$\frac{\frac{6}{x} - 1}{x - 6}$$

- A. {5.9000, 5.9900, 6.0100, 6.1000}

- B. $\{6.1000, 6.0100, 6.0010, 6.0001\}$
 - C. $\{6.0000, 6.1000, 6.0100, 6.0010\}$
 - D. $\{6.0000, 5.9000, 5.9900, 5.9990\}$
 - E. $\{5.9000, 5.9900, 5.9990, 5.9999\}$
-